

# RESILIENCE AND HEALTH IN REPATRIATED PRISONERS OF WAR

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**Background** Segovia et al. (2012) identified in a retrospective study of Vietnam repatriated prisoners of war medical/psychiatric data (recorded circa 1973) six variables were critical for those who were considered resilient 38 years later; because, they were free of any psychiatric diagnoses across repeated medical evaluations since repatriation in 1973. These variables were the following: officer status in favor over enlisted status, older at time of capture, less time in solitary confinement, low antisocial/psychopathic personality, low post-traumatic stress symptoms upon repatriation, and optimism with the latter accounting for the most variance (17%) in the findings. Sleep efficiency and its impact on resilience was an additional variable analyzed later as a separate study (Segovia et al., in press). In that analysis of repatriates' self-reported sleep efficiency surveys (circa 1973), reporting fewer sleep complaints (i.e., early morning awakenings, nightmares), but not necessarily an absence of them before, during, and after prolonged captivity predicted resilience 38 years later. Particularly interesting were the repatriates who seemed to have "bounced back" from the captivity experience in reporting fewer sleep complaints at repatriation were nearly 2 ½ times more likely to be resilient than the groups reporting sleep difficulties at repatriation. Thus, this report combines these predictive variables in an attempt to broaden what is resilience beyond the absence of psychiatric diagnosis to include current health status (both physical and mental). This prospective study conducted a number of physical and psychological assessments with today's still-living, Vietnam repatriates.

**Objectives** Guided by the premise that demographic, physical and psychological factors could contribute to overcoming trauma, and years later, would be indexed in individuals maintaining good health.

**Methods** The study examined 128 of this country's longest detained American prisoners of war, those held in Vietnam in the 1960s through early 1970s. Eighteen variables (9

physical and 9 psychological, Table 1) were each z-scored and then averaged together to develop an average physical rating, and an average psychological rating for each individual. These average z-scores were then correlated (Pearson) with five of the six identified variables (Segovia et al., 2012), and two additional variables (captivity-related medical problems, and sleep efficiency at repatriation) were included into the model-development process. An independent t-test was performed for officer/enlisted on these health ratings. Two linear regressions were performed to determine the variables which contributed the most to each of the health ratings.

**Results** Table 2a summarizes the Pearson correlations. A number of the predictors correlated with physical and psychological health z-scores. Note under the "Physical Health Z" portion of Table 2a, sleep efficiency at repatriation and the number of captivity-related medical problems were the largest correlations and the most significant, followed by optimism and to a lesser degree antisocial/psychopathic personality (MMPI Pd). Note under the "Psychological Health Z" portion of Table 2a, optimism was the largest correlation and the most significant, followed by MMPI Pd, post-traumatic stress symptoms at repatriation (PTSS determined in King et al., 2011), and number of captivity-related medical problems. The t-test between the officer vs. the enlisted group was not significant. The linear regression of the predictors with the physical health z-scores identified sleep efficiency at repatriation as a predictor of physical health 38 years later. The variance accounted for in this predictor was 16% ( $R^2 = 0.16$ ), a substantial amount for 38 years (Table 2b). The linear regression of the predictors with psychological health z-scores identified the subset of optimism and PTSS as predictive of psychological health 38 years later (Table 2b). The variance accounted for in this subset of predictors was 22% ( $R^2 = 0.22$ ).

**Discussion** Optimistic repatriates who "bounced back" from their captivity experience

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14. ABSTRACT <b>Background: In an earlier study, the Robert E. Mitchell Center for POW Studies identified in the 1973 medical/psychiatric database those former, Vietnam-era, repatriated prisoners of war who at the time of captivity viewed their experience as one to survive and overcome, to not ruin their entire life once freed (known as dispositional optimism), these repatriates did not suffer from any psychiatric illnesses 37 years after their POW experience. This follow-up study added new mental, physical, biological data collected in 2011 to 2012 to determine whether dispositional optimism was still linked to their overall state of health today. Results: Dispositional optimism identified in the 1973 time-frame was linked to physical and mental state of health Conclusions: Optimistic repatriates who ?bounced back? from their captivity experience by reporting fewer sleep, post-traumatic stress, and captivity-related medical problems after repatriation have maintained good physical and psychological health 38 years after their prolonged captivity/torture experiences.</b>					
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by reporting fewer sleep, post-traumatic stress, and captivity-related medical problems after repatriation have maintained good physical and psychological health 38 years after their prolonged captivity/torture experiences.

**Conclusion** These repatriates are an extraordinary example of the power of the human being to survive and thrive. The lessons learned from these heroes can be used to better train and screen military service members of this generation.

Table 1

Health Ratings	
Physical	Psychological
Allostatic Load <sup>a</sup>	Life Satisfaction
FEV1 <sup>b</sup>	Quality of Life
Dominant Hand-Grip Strength	Positive/Negative Affect Ratio
10-Meter Timed Walking Speed	Autonomy
CIRS <sup>c</sup>	Environmental Mastery
SF12 <sup>d</sup>	Personal Growth
Telomeres <sup>e</sup>	Positive Relationships
Sleep Efficiency <sup>f</sup>	Purpose in Life
Family Physical Disease Burden <sup>g</sup>	Self-Acceptance

a Total percent of metabolic items in pathological range (e.g., blood pressure, waist-hip ratio, cholesterol, cortisol, norepinephrine, DHEA)

b Pulmonary function testing (FEV1 – expiratory flow volume in one second)

c Cumulative Illness Rating – a physician rating

d Health & Well Being Self Rating (proprietary survey of 12 questions)

e Chromosome ends of repetitive nucleotide sequences which shorten with chronological age and life stressors can impact them

f Self rating

g Family, self-assessed, medical history survey (immediate, siblings, parents)

Table 2a

**Correlations**

At Repatriation		Physical Health Z	Psychological Health Z
	Age TOC	-0.148	-0.035
	Solitary Duration	-0.115	-0.082
	Captivity MedProbs	-0.314	-0.212
	Early Sleep	-0.359	-0.151
	PTSS	-0.101	-0.215
	MMPI Pd	-0.221	-0.232
	Optimism	-0.297	-0.485
<b>T-Test</b>			
	O/E Status	1.24	1.21

Table 2b

**Linear Regression (Standardized Beta Weights)**

		Physical Health Z	Psychological Health Z
R <sup>2</sup>	Sleep	-0.282	
0.16			
R <sup>2</sup>	Optimism		-0.384
0.22	PTSS		-0.225
		p < 0.05	
		p < 0.01	
		p < 0.001	

**References**

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